UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,455	01/23/2001	Dale A. Sather	418268851US	9738

45979   7590   05/03/2007
PERKINS COIE LLP/MSFT
P. O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER
LUDWIG, MATTHEW J

ART UNIT	PAPER NUMBER
2178	

MAIL DATE	DELIVERY MODE
05/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	09/767,455	SATHER, DALE A.
	Examiner	Art Unit
	Matthew J. Ludwig	2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 February 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>28-50</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>28-50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the amendment received 2/14/2007.

2.   Claims 28-50 have been examined, with claims 28, 36, and 44 being the independent claims.

3.   Claims 28-50 rejected under 35 U.S.C. 102(e) as being anticipated by Stapel have been withdrawn pursuant to applicant's amendment.

The Specification

4.   Applicant is reminded of the requirement to update the status (pending, allowed, etc.) of all parent priority applications in the first line of the specification, when appropriate, and the status of all citations of U.S. filed applications in the specification should also be updated, when appropriate.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 28-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stapel et al., USPN 6,912,538 B2 filed 10/19/01.**

In reference to independent claim 28, Stapel teaches:

A hierarchical model current representation in col. 2, line 6 through col. 3, line 2. Stapel specifically discusses the hierarchical limitation of the prior art document representation in col. 2, lines 6-22 and col. 2, lines 47-57. Stapel points out that the hierarchical structure is insufficient to achieve complex representations. Therefore, Stapel discloses a new document representation in col. 3, line 5 through col. 4, line 58, which it calls a matrix representation, which defines elements and their association such that both standard hierarchical and complex non-hierarchical relationships can be defined between elements using the same mechanism.

Stapel discloses identifying elements of the current representation that are to be items in the new representation in figure 2, figure 3, col. 3, lines 41-58, and col. 8, line 5 through col. 10, line 51. Stapel discloses for each identified element, creating for the new representation an item corresponding to the identified element in figure 2, figure 3, col. 8, line 5 through col. 10, line 51. Stapel discloses for each created item, adding to the item that is a subject of a hierarchical relationship as indicated by the current representation a link to each item corresponding to an identified element that is an object of the hierarchical relationship as indicated by the current representation in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51. Stapel discloses for non-hierarchical relationships between elements and content of elements as indicated by the current representation, adding to an item corresponding to the element that is the subject of the non-hierarchical relationship a link to the item corresponding to the content of the element that is the object of the non-hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5

through col. 10, line 51. Stapel discloses wherein the created items and added links form the new representation of the document in col. 3, line 5 through col. 4, line 58.

See, Stapel, figure 1, element 150, teaching the "link" between elements in a non-hierarchical relationship shown as ordered elements in the matrix traversal, such as "A.C.F.X," with the relationship link shown by the period ("."). The link illustrated in the figure 1 suggests 'a relation' to the items listed in the non-hierarchical relationship. Because the claim limitations are to be given their broadest reasonable interpretation within the scope of the art, phrases, such as, 'an item', 'a relation', and 'adding to an item', do little in providing a narrow claim that ultimately describes the limitations within the claim. The word 'relation' is not explicitly stated in the reference to Stapel, however, as presently claimed, the Stapel reference provides a suggestion of the items and relations as illustrated in figure 1. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the well known link methods of the XML DOM model (akin to the item, relation, attribute object model) taught by Stapel and modified the terms to include a 'relation' as a link performs similar functions and would have given the model a way to keep track of the defined arrangement.

In reference to dependent claim 29, Stapel teaches:

Stapel discloses wherein the hierarchical relationships are explicit and the non-hierarchical relationships are implicit in col. 2, line 6 through col. 4, line 15.

In reference to dependent claim 30, Stapel teaches:

Stapel discloses wherein the hierarchical model is XML based in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 31, Stapel teaches:

Stapel discloses, wherein the hierarchical relationships are indicated by parent and child

relationships of XML elements in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 32, Stapel teaches:

Stapel discloses wherein the non-hierarchical relationship is an attribute of an XML

element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 33, Stapel teaches:

Stapel discloses wherein a non-hierarchical relationship is a property of an XML element

that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 34, Stapel teaches:

Stapel discloses wherein a non-hierarchical relationship is content of an XML element

that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 35, Stapel teaches:

Stapel discloses were the new representation is based on an item, relationship, and

attributed model in figure 3, col. 3, line 5 through col. 4, line 58, and col. 10, line 3-51. The

elements are stored in table 210, the relationships are stored in table 230, and the attributes are

stored in table 250, all shown in figure 3.

In reference to independent claim 36, Stapel teaches:

Stapel discloses a hierarchical model current representation in col. 2, line 6 through col.

3, line 2. Stapel specifically discusses the hierarchical limitation of the prior art document

representation in col. 2, lines 6-22 and col. 2, lines 47-57. Stapel points out that the hierarchical

structure is insufficient to achieve complex representations. Therefore, Stapel discloses a new

document representation in col. 3, line 5 through col. 4, line 58, which it calls a matrix

representation, which defines elements and their association such that both standard hierarchical

and complex non-hierarchical relationships can be defined between elements using the same

mechanism.

Stapel discloses identifying elements of the current representation that are to be items in

the new representation in figure 2, figure 3, col. 3, lines 41-58, and col. 8, line 5 through col. 10,

line 51. Stapel discloses for hierarchical relationships between elements of the current

representation, adding to an item corresponding to the element that is a subject of the hierarchical

relationship a link to the item corresponding to the element that is an object of the hierarchical

relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5

through col. 10, line 51. Stapel discloses for non-hierarchical relationships between elements

and content of elements as indicated by the current representation, adding to an item

corresponding to the element that is the subject of the non-hierarchical relationship a link to the

item corresponding to the content of the element that is the object of the non-hierarchical

relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5

through col. 10, line 51. Stapel discloses adding to items attributes of corresponding elements of

the current representation that do not indicate a relationship between elements in figure 3 and

col. 10, lines 2-51. The attribute table stores item attributes for each of the elements that do not

indicate relationships.

See, Stapel, figure 1, element 150, teaching the "link" between elements in a non-

hierarchical relationship shown as ordered elements in the matrix traversal, such as "A.C.F.X,"

with the relationship link shown by the period ("."). The link illustrated in the figure 1 suggests

'a relation' to the items listed in the non-hierarchical relationship. Because the claim limitations are to be given their broadest reasonable interpretation within the scope of the art, phrases, such as, 'an item', 'a relation', and 'adding to an item', do little in providing a narrow claim that ultimately describes the limitations within the claim. The word 'relation' is not explicitly stated in the reference to Stapel, however, as presently claimed, the Stapel reference provides a suggestion of the items and relations as illustrated in figure 1. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the well known link methods of the XML DOM model (akin to the item, relation, attribute object model) taught by Stapel and modified the terms to include a 'relation' as a link performs similar functions and would have given the model a way to keep track of the defined arrangement.

In reference to dependent claim 37, Stapel teaches:

Stapel discloses wherein the hierarchical relationships are explicit and the non-hierarchical relationships are implicit in col. 2, line 6 through col. 4, line 15. Stapel discloses wherein the non-hierarchical relationships are explicit in the new representation of the document in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51.

In reference to dependent claim 38, Stapel teaches:

Stapel discloses wherein the hierarchical model is XML based in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 39, Stapel teaches:

Stapel discloses, wherein the hierarchical relationships are indicated by parent and child relationships of XML elements in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 40, Stapel teaches:

Stapel discloses wherein the non-hierarchical relationship is an attribute of an XML

element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 41, Stapel teaches:

Stapel discloses wherein a non-hierarchical relationship is a property of an XML element

that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 42, Stapel teaches:

Stapel discloses wherein a non-hierarchical relationship is content of an XML element

that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 43, Stapel teaches:

Stapel discloses were the new representation is based on an item, relationship, and

attributed model in figure 3, col. 3, line 5 through col. 4, line 58, and col. 10, lines 3-51. The

elements are stored in table 210, the relationships are stored in table 230, and the attributes are

stored in table 250, all shown in figure 3.

In reference to independent claim 44, Stapel teaches:

Stapel discloses a hierarchical model current representation in col. 2, line 6 through col.

3, line 2. Stapel specifically discusses the hierarchical limitation of the prior art document

representation in col. 2, lines 6-22 and col. 2, lines 47-57. Stapel points out that the hierarchical

structure is insufficient to achieve complex representations. Therefore, Stapel discloses a new

document representation in col. 3, line 5 through col. 4, line 58, which it calls a matrix

representation, which defines elements and their association such that both standard hierarchical

and complex non-hierarchical relationships can be defined between elements using the same mechanism.

Stapel discloses identifying elements of the current representation that are to be items in the new representation in figure 2, figure 3, col. 3, lines 41-58, and col. 8, line 5 through col. 10, line 51. Stapel discloses for hierarchical relationships between elements of the current representation, adding to an item corresponding to the element that is a subject of the hierarchical relationship a link to the item corresponding to the element that is an object of the hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51. Stapel discloses for non-hierarchical relationships between elements and content of elements of the current representation, adding to an item corresponding to the element that is the subject of the non-hierarchical relationship a link to the item corresponding to the content of the element that is the object of the non-hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51.

See, Stapel, figure 1, element 150, teaching the "link" between elements in a non-hierarchical relationship shown as ordered elements in the matrix traversal, such as "A.C.F.X," with the relationship link shown by the period ("."). The link illustrated in the figure 1 suggests 'a relation' to the items listed in the non-hierarchical relationship. Because the claim limitations are to be given their broadest reasonable interpretation within the scope of the art, phrases, such as, 'an item', 'a relation', and 'adding to an item', do little in providing a narrow claim that ultimately describes the limitations within the claim. The word 'relation' is not explicitly stated in the reference to Stapel, however, as presently claimed, the Stapel reference provides a suggestion of the items and relations as illustrated in figure 1. Therefore, it would have been

obvious to one of ordinary skill in the art, at the time the invention was made, to have modified

the well known link methods of the XML DOM model (akin to the item, relation, attribute object

model) taught by Stapel and modified the terms to include a 'relation' as a link performs similar

functions and would have given the model a way to keep track of the defined arrangement.

In reference to dependent claim 45, Stapel teaches:

Stapel discloses wherein the hierarchical relationships are explicit and the non-

hierarchical relationships are implicit in col. 2, line 6 through col. 4, line 15.

In reference to dependent claim 46, Stapel teaches:

Stapel discloses, wherein the hierarchical relationships are indicated by parent and child

relationships of XML elements in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 47, Stapel teaches:

Stapel discloses wherein the non-hierarchical relationship is an attribute of an XML

element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 48, Stapel teaches:

Stapel discloses wherein a non-hierarchical relationship is a property of an XML element

that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to **dependent claim 49**, Stapel teaches:

Stapel discloses wherein a non-hierarchical relationship is content of an XML element

that refers to another XML element in col. 2, line 6 through col. 3, line 2.

In reference to dependent claim 50, Stapel teaches:

Stapel discloses were the new representation is based on an item, relationship, and

attributed model in figure 3, col. 3, line 5 through col. 4, line 58, and col. 10, line 3-51. The

elements are stored in table 210, the relationships are stored in table 230, and the attributes are

stored in table 250, all shown in figure 3.

7.   It is noted that any citations to specific, pages, columns, lines, or figures in the prior art

references and any interpretation of the references should not be considered to be limiting in any

way. A reference is relevant for all it contains and may be relied upon for all that it would have

reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Response to Arguments

8.   Applicant's arguments with respect to claims 28-50 have been considered but are moot in

view of the new ground(s) of rejection.

       Applicant amended the independent claims and replaced the term 'link' with the word

'relation'. Furthermore, applicant removed the objected phrase 'the same mechanism' and

replaced the phrase with 'an item, relation, and attribute object model'. The amendments made to

the independent claims change the scope of the claims when read as a whole. The rejections have

been adjusted accordingly. Furthermore, the item, relation, attribute object model (IRA object

model) as stated in the specification (page 4, lines 23-25) shares a kinship with Extensible

Markup language (XML) compliant documents and the XML Document Object Model (DOM).

Therefore, the XML examples provided in the Stapel reference are utilized to provide a similar

function as that of the IRA object model.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
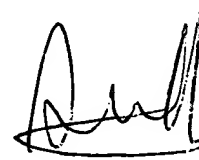
final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew J. Ludwig whose telephone number is 571-272-4127.

The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ML

STEPHEN HONG
SUPERVISORY PATENT EXAMINER